AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-45 (Canceled).

Claim 46. (New) A method of preparing calibrated pieces of mammalian cerebral tissue, the method comprising:

(i) obtaining one or more samples of mammalian cerebral nerve tissue,

(ii) cutting the one or more samples into pieces,

(iii) washing the pieces in mammal Krebs solution,

(iv) passing the pieces through at least one grid having a mesh size to produce calibrated pieces of mammalian cerebral material having a mean size between 0.1 mm^3 and 5 mm^3,

(v) harvesting the calibrated pieces of mammalian cerebral tissue.

Claim 47. (New) The method of claim 46, wherein said cerebral nerve tissue comprises an entire brain.

Claim 48. (New) The method of claim 46, wherein said cerebral nerve tissue is selected from the group consisting of the cortex and the cerebellum of a brain.

Claim 49. (New) The method of claim 46, wherein said mammal is selected from the group consisting of rat, mouse and human.

Claim 50. (New) The method of claim 46, wherein said grid is a nylon or metallic grid.

Claim 51. (New) The method of claim 46, wherein said mesh size is between 0.5 mm and 2 mm.

Claim 52. (New) The method of claim 46, wherein said mesh size is between about 1 mm and 2 mm.

Claim 53. (New) The method of claim 46, wherein cutting the one or more samples into pieces comprises cutting the one or more samples into pieces of about 1 to 2 mm^3.

Claim 54. (New) The method of claim 46, wherein harvesting the calibrated pieces of mammalian cerebral tissue comprises collecting the calibrated pieces of mammalian cerebral tissue from the bottom of a receptacle after spontaneous sedimentation.

Claim 55. (New) A composition of calibrated pieces of mammalian of cerebral tissue obtained by the method of claim 46.

Claim 56. (New) The composition of claim 55 comprising calibrated pieces of mammalian cerebral tissue in mammal Krebs solution.

Claim 57. (New) A process for identifying compounds that are able to modulate the release of at least one neuromediator, the process comprising:

(i) bringing at least one compound to be tested into contact with a preparation of calibrated pieces of mammalian of cerebral tissue obtained by the method of claim 46,

(ii) determining whether said compound to be tested modulates the release of said neuromediator by said cerebral tissue by comparing the amount of said neuromediator released as a result of step (i) with the amount of said neuromediator released in a preparation of calibrated pieces of mammalian of cerebral tissue obtained by the method of claim 46 that lacks said compound to be tested.

Claim 58. (New) The process of claim 57, wherein said determination step (ii) comprises contacting the mixture of step (i), or its supernatant, with at least one substance which can react with said neuromediator, said reaction, when it occurs, resulting in the liberation of detectable substance.

Claim 59. (New) The process of claim 57, wherein said compound to be tested is selected from among the group consisting of an isolated compound, a compound mixture, a biological sample, a combinatorial bank, a synthetic molecule, a natural molecule and combinations thereof.

Claim 60. (New) The process of claim 57, wherein said cerebral tissue is cerebral cortex.

Claim 61. (New) The process of claim 58, wherein said detectable substance is measured by emission of a light signal.

Claim 62. (New) The process of claim 57, wherein said neuromediator is selected from among the group consisting of glutamate (Glu), acetylcholine (Ach), gamma-aminobutyrate (GABA), and catecholamines.

Claim 63. (New) The process of claim 57, wherein said determination step (ii) comprises contacting the mixture of step (i), or its supernatant, with at least one enzyme and, at least one agent, wherein said neuromediator is a substrate of said enzyme and said agent emits a light signal when said enzyme contacts said neuromediator.

Claim 64. (New) The process of claim 63, wherein said neuromediator is acetylcholine and wherein said determination step (ii) comprises contacting the mixture of step (i), or its supernatant, with acetylcholinesterase, choline oxidase, peroxidase, and luminol.

Claim 65. (New) The process of claim 63, wherein said neuromediator is glutamate and wherein said determination step (ii) comprises contacting the mixture of step (i), or its supernatant, with glutamate dehydrogenase, oxydoreductase, luciferase, NAD, and decaldehyde.

Claim 66. (New) The process of claim 63, wherein said neuromediator is GABA and wherein said determination step (ii) comprises contacting the mixture of step (i), or its supernatant, with gabase, oxydoreductase, luciferase, NAD and FMN.

Claim 67. (New) The process of claim 63, wherein said neuromediator is a catecholamine and wherein said determination step (ii) comprises contacting the mixture of step (i), or its supernatant, with lactoperoxidase and luminol.

Claim 68. (New) The process of claim 63, wherein said mixture of step (i), or its supernatant, said enzyme and said agent are contacted successively.

Claim 69. (New) The process of claim 63, wherein said mixture of step (i), or its supernatant, said enzyme and said agent are contacted simultaneously.

Claim 70. (New) The process of claim 67, wherein said catecholamine is selected from among the group consisting of dopamine, ATP, norepinephrine and epinephrine.